

Calendar

Tuesday, Sept. 9
3:30 p.m.

DIRECTOR'S COFFEE
 BREAK - 2nd Flr X-Over
 THERE WILL BE NO
 ACCELERATOR PHYSICS
 AND TECHNOLOGY
 SEMINAR TODAY

Wednesday, Sept. 10

1:30 a.m.

[LHC first beam Pajama Party](#) -

Wilson Hall atrium

3:30 p.m.

DIRECTOR'S COFFEE
 BREAK - 2nd Flr X-Over
 THERE WILL BE NO
 FERMILAB COLLOQUIUM
 THIS WEEK

4 p.m.

Special Seminar - One West
 Speaker: L. E. Temple, Jr.,
 Argonne National Laboratory/
 Fermilab

Title: Critical Decisions on
 DOE Projects: Fermilab
 Implementation of Project
 Management

[Click here](#) for NALCAL,
 a weekly calendar with links
 to additional information.

Weather



Mostly sunny
68 °/44°

[Extended Forecast](#)
[Weather at Fermilab](#)

Current Security Status

[Secon Level 3](#)

Wilson Hall Cafe

From symmetry breaking

LHC science documentary airs Tuesday at 7 p.m. CST



CDF co-spokespersons [Jacobo Koningsberg](#) and
[Rob Roser](#).

Editor's note: CDF co-spokesperson [Rob Roser](#) is prominently featured in the "Next Big Bang" a documentary about the Large Hadron Collider that will air this evening.

Astronomy—with its lush images of brightly-colored nebulae and violent solar storms—makes good fodder for popular media. But theoretical physics? A search in Amazon.com's Movies & TV section turns up zero hits. So on Tuesday, Sept. 9, cable TV's History Channel will do the unprecedented: air a mainstream TV show centered on theoretical and experimental particle physics.

The "Next Big Bang" will air at 7 p.m. CST, on the eve of first light in the Large Hadron Collider. The show adds to the LHC fever that promises to do for high-energy physics what Carl Sagan and Steven Hawking did for astrophysics and cosmology. (And let's face it; the doomsday lawsuits haven't hurt, either.) Supersymmetry, extradimensional space, quantum mechanics—this cable program will go there.

"The biggest mistake was trying to cover too much information," says Johns Hopkins University particle theorist David Kaplan, who served as science advisor and narrator for the one-hour documentary. "Dark matter, supersymmetry, extra dimensions, the LHC machine, computing power, quantum theory... it's a lot. That was my only complaint in the end."

But the show works hard to get its ambitious material right: "It's all correct," Kaplan says.

Director's Corner

Dark Energy Survey

The dark world, dark matter and dark energy, remain the most embarrassing mystery in science. At the start of the 21st century we do not see or understand what 95 percent of the universe is made of. All that stuff we describe as dark. At least for one of the



[Pier Oddone](#)

components, dark matter, we can almost taste its discovery, either through direct detection deep underground or through production at the LHC. Dark energy, on the other hand, continues to be totally mysterious.

We only know one parameter for dark energy: the current acceleration in the Hubble expansion. Its discovery was a total surprise and one of the most important discoveries of the 20th century. Future generations of measurements will tell us whether this acceleration is constant or changes with time, the first step in understanding the nature of dark energy.

Today and tomorrow the Dark Energy Survey Project (DES), a broad international project under the leadership of Director Emeritus John Peoples, will go through a thorough review by a committee reporting to DOE and to NSF. It is a very important review for us. A successful outcome will mark the full start of construction of this important project. Fermilab will manage the construction of DECam, the CCD camera that will be used on the improved Blanco Telescope at the Cerro Tololo Inter-American Observatory in Chile (CTIO). The Observatory is part of the National Optical Astronomical Observatory (NOAO), which is managed by the Association of Universities for Research in Astronomy (AURA). DES will make the next-generation measurements of dark energy, and it will be an important precursor for very large multi-hundred-million-dollar instruments that will follow, including the Joint Dark Energy Mission (JDEM) in space or the Large Synoptic Survey Telescope (LSST) on the ground.

For us this review comes after several years of

Tuesday, Sept. 9

- Tomato bisque
- Lemon pepper club
- Beef fajitas
- Smart cuisine: asparagus chicken w/black bean sauce
- Grilled chicken Caesar wrap
- Assorted sliced pizza
- Rio Grande taco salad

[Wilson Hall Cafe Menu](#)

Chez Leon**Wednesday, Sept. 10****Lunch**

- Chile reno with a tomato sauce
- Rice & beans ~ pico de gallo
- Cold lime soufflé

Thursday, Sept. 11**Dinner**

- Closed

[Chez Leon Menu](#)

Call x4598 to make your reservation.

Archives

[Fermilab Today](#)

[Result of the Week](#)

[Safety Tip of the Week](#)

[ILC NewsLine](#)

Info

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is online at:

www.fnal.gov/today/

Send comments and

suggestions to:

today@fnal.gov

More than that, the filmmakers aimed to create imagery that, at least partially, demystifies physics' most arcane realms for the public.

"There are some spectacular visual metaphors in it," Kaplan says, "which I really like."

[Read more](#)

Photo of the Day**Is it a moth, a bird?**

ES&H's Terry Dykhuis sent in this photo of a sphinx moth, also called hummingbird moth. The photo was taken over Labor Day weekend in Sublette, IL. These moths are difficult to photograph because they hover to sip nectar from each flower for only a few seconds.

LHC Update**Multibillion-dollar experiment to probe nature's mysteries**

From *CNN.com*, Sept. 8, 2008

The Large Hadron Collider will look at how the universe formed by analyzing particle collisions. Some have expressed fears that the project could lead to the Earth's demise -- something scientists say will not happen. Still, skeptics have filed suit to try to stop the project.

It even has a rap dedicated to it on YouTube.

Scientists say the collider is finally ready for an attempt to circulate a beam of protons the whole way around the 17-mile tunnel. The test, which takes place Wednesday, is a major step toward seeing if the the immense experiment will provide new information about the way the universe works.

"It's really a generation that we've been looking forward to this moment, and the

preparation. In the language of DOE's Project Management Order this review will be the foundation of approval of Critical Decision 3b (Approve Start of Construction) for DECam. In this era, projects require a rigorous understanding of cost, schedule and performance before being launched. DOE's Project Management Order establishes a framework to assure DOE that projects are thoroughly understood before construction.

The joint review will also evaluate the status of the DES Data Management System, which is led by the National Center for Supercomputing Applications (NCSA) at the University of Illinois Urbana-Champaign, and the CTIO Facilities Improvement Project, which will pave the way for DECam.

It is important for all of us to understand the framework that the DOE Project Management Order establishes and its many steps and requirements when we undertake projects. To that end, we are planning a special seminar tomorrow at 4 p.m. in One West by one of the masters of project management, Ed Temple. Stay tuned.

Accelerator Update**September 5-8**

- Four stores provided 66 hours and 26 minutes of luminosity
- Lithium Lens repaired
- MRF has modulator problems

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

Announcements**[Have a safe day!](#)****Microsoft Word, Excel classes**

The Office for Professional and Organization Development will offer classes in Microsoft Word and Excel in early October. "Word 2003 Advanced" will take place on Oct. 7. [Learn](#)

[more and enroll](#). "Excel Advanced" will take place on Oct. 8. [Learn more and enroll](#).

Wilson Hall interior window washing

Wilson Hall interior window washing will continue through Thursday. The schedule is below. Please clear all items from in front of windows prior to your floor's interior washing date.

Tuesday: Floors 8-11

Wednesday: Floors 4-7

Thursday: Ground, Mezzanine and floors 1-3.

moments that will come after it in particular," said Bob Cousins, deputy to the scientific leader of the Compact Muon Solenoid experiment, one of six experiments inside the collider complex. "September 10 is a demarcation between finishing the construction and starting to turn it on, but the excitement will only continue to grow."

The collider consists of a particle accelerator buried more than 300 feet near Geneva, Switzerland. About \$10 billion have gone into the accelerator's construction, the particle detectors and the computers, said Katie Yurkewicz, spokeswoman for CERN, the European Organization for Nuclear Research, which is host to the collider.

In the coming months, the collider is expected to begin smashing particles into each other by sending two beams of protons around the tunnel in opposite directions. It will operate at higher energies and intensities in the next year, and the experiments could generate enough data to make a discovery by 2009, experts say.

[Read more](#)

Vote for your favorite safety message

Since October 2007, people entering the Fermilab site have been greeted by safety messages. We want to hear which messages you think were the best. Please take a minute and vote for your five favorite safety messages [here](#). We will enter the names of all people participating in the vote in a drawing for prizes such as Fermilab baseball caps and fleece pullovers. Please vote by September 12. All employees, users and contractors of Fermilab and the DOE Fermi Site Office are invited to participate.

Scottish Country Dancing Tuesday

Scottish Country Dancing will take place in Kuhn Barn in the Fermilab Village on Tuesday, Sept. 9. Instruction begins at 7:30 p.m. Newcomers are always welcome. Most dances are fully taught and walked through. You do not need to come with a partner. For more information call (630) 840-8194 or (630) 584-0825 or [e-mail](#).

[Additional Activities](#)